

**BREAKING OF SEED DORMANCY RESISTANCE BY MECHANICAL  
SCARIFICATION TREATMENT AND POTTASIMUM NITRATE  
GERMINATION AND GROWTH OF SOURSOP (*Annona muricata* L.)**

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**ABSTRACT**

Soursop seeds are seeds that have a hard seed coat. Soursop seeds require dormancy breaking treatment to accelerate germination. This research aims to determine the effect of sanding and soaking in KNO<sub>3</sub> on the growth of soursop seeds. The research was conducted from March to June 2023 at the Greenhouse, Faculty of Agriculture, UPN "Veteran" Yogyakarta. This research method uses 2 experimental stages, the first is the germination test stage, the second is the growth test stage. This research used a Completely Randomized Design (CRD) with two treatment factors. The first factor is scarification (S1 = sanding the tip of the seed, S2 = sanding one side of the seed, S3 = sanding both sides of the seed). The second factor is the KNO<sub>3</sub> concentration (K1 = 0,2% KNO<sub>3</sub>, K2 = 0,4% KNO<sub>3</sub>, K3 = 0,6% KNO<sub>3</sub> and K4 = 0,8% KNO<sub>3</sub>). Plants without treatment as control. The research data were analyzed for diversity using Analysis of Variance at the 5% level, continue with the Duncan's Multiple Range test (DMRT) at the 5% level. The test between treatment and control was tasted by Orthogonal Contrast. The observation results showed that the combination of scarification and KNO<sub>3</sub> treatments was significantly better than the control. There was an interaction between the scarification treatment and KNO<sub>3</sub> concentration on the parameters of germination, maximum growth potential, germination speed, plant height, number, stem diameter, root length, root volume and weight dry.

Keywords : *Soursop Seed, Dormancy, Scarification, Pottasium Nitrate*